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Status of Atlantic salmon stocks, Gulf Region Newfoundland and Labrador, 1989

by

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ABSTRACT

Harvests in commercial and recreational fisheries in 1989 were below 1988 in all areas, except small and large commercial catches in Southern Labrador (Section 50). Catches in 1989 were also below previous five year means except commercial catch of small salmon in Section 50. However, 1985-1989 mean catches generally indicated long term trends which differed from those observed for 1989. For example, 1985-1989 mean 1SW recreational catches in SFA 12 were similar to 1978-1984 means and above 1974-1977 means. Mean (1985-1989) small commercial catches in SFA 13 were above 1974-1984 means, while mean (1985-1989) large catches were similar to long term means. Mean 1SW recreational catches in SFA 13 (1985-1989) were below 1974-1984 means. In SFA 14, small and large commercial catches (1985-1989) were above 1974-1984 means while 1SW recreational means (1985-1989) were similar to long term means. In Southern Labrador means (1985-1989) were similar to 1978-1984 means for all recreational and commercial catches.

RESUME

En 1989, les récoltes des pêches commerciales et sportives ont été inférieures dans toutes les zones a celles de 1988, à l'exception des prises commerciales de petits et de gros saumons dans le sud du Labrador (section 50). De plus, les prises ont également été inférieures à la moyenne des cinq années antérieures, sauf en ce qui concerne les prises commerciales de petits saumons dans la section 50. Toutefois, les prises moyennes de 1985 à 1989 ont généralement révélé des tendances à long terme différentes de celles qui ont été observées pour 1989. Ainsi, les prises sportives moyennes d'unibermarins pour 1985-1989 dans la ZPS 12 étaient comparables à celles de 1978-1984 et supérieures à celles de 1974-1977. Les prises commerciales moyennes des petits saumons pour 1985-1989 dans la ZPS 13 étaient supérieures à celles de 1974-1984, tandis que les prises moyennes de gros saumons pour 1985-1989 étaient comparables aux moyennes à long terme. Dans la ZPS 13, les prises sportives moyennes d'unibermarins de 1985 à 1989 étaient inférieures aux moyennes de 1974-1984. Dans la ZPS 14, les prises moyennes commerciales des petits et gros saumons pour 1985-1989 étaient supérieures à celles de 1974-1984, tandis que les prises moyennes sportives d'unibermarins de 1985 à 1989 étaient comparables aux moyennes dans le sud du Labrador pour 1985-1989 étaient comparables à celles de 1978-1984.

INTRODUCTION

This paper presents the status of Atlantic salmon stocks in Gulf Region portions of Newfoundland and Labrador for 1989. This area consists of three Salmon Fishing Areas (12, 13, 14) which are comprised of seven Statistical Areas (J_2, K, L, M, N, O(50), A(01)) (Fig. 1 Table 1). There are 51 scheduled salmon rivers in this area (Fig. 2; Table 2) and river escapements are counted on three by fishway on Torrent River and counting fences on Western Arm and Fischells Brooks (Fig. 2; Table 2).

Commercial and recreational harvest statistics, fishway, and fence counts are compared to historical data to assess the status of West Newfoundland and Southern Labrador salmon stocks.

Commercial regulations in 1989 were similar to those in effect for 1988. Area 12 remained closed, Area 13 was open from June 5 - July 10 as from 1978 - 1988. Area 14 was open from June 5 - October 15 compared to June 12 - December 31 in years previous to 1986. No new licenses were issued in 1989. In 1988, there were 403 licenses in the Gulf Region which included 61 in Southern Labrador. Full-time fishermen were licensed for a maximum of 200 fathoms of gillnet. Mesh sizes permitted in Salmon Fishing Area 13 were as follows: Cape Ray - Cape Anguille 127 mm, Cape Anguille - Cape George 114 mm, and Cape George - Cape St. Gregory 127 mm. A mesh size of 127 mm was permitted through Salmon Fishing Area 14.

Recreational fishery regulations were also similar to 1988. Subject to closures as a result of low water levels, quotas being caught, and local variation orders the following seasons applied to this fishery (Table 3).

Area	Season
Fox Point to Cape Ray	June 17 - Sept. 4
Cape Ray to Salmon Point (Bonne Bay)	June 3 - Sept. 4
Salmon Point to Cape Bauld	June 17 - Sept. 4
Southern Labrador	June 4 - Sept. 11

Anglers were required to release salmon $\geq$ 63 cm in insular Newfoundland but these salmon could be retained in Southern Labrador. The seasonal bag limit of 15 fish, daily limit of two retained, and daily limit of 4 hooked and released introduced in 1986 remained in effect for 1989.

METHODS

Catch statistics have all been updated from previous reports and summary tables may differ slightly from those in Claytor and Mullins (1989). This difference is most relevant to commercial catches prior to 1983 which have been revised to match those provided to ICES.

Catches in 1989 were compared to previous years catches in two ways, first to previous five, ten and fifteen year means as in previous reports and second mean catches were calculated for years in which management plans were similar, 1974-1977, 1978-1984 and 1985-1989. For example, 1974-1977 were years in which the commercial and recreational seasons were opened the earliest since 1974. From 1978-1984, the commercial season opened in week 23 and recreational seasons in week 23-25, that is opening dates were the latest since 1974. From 1985-1989, commercial seasons also opened in week 23 but recreational seasons opened in weeks 23-24, so that opening dates were intermediate to those from 1974-1977 and 1978-1984. Also during this time period, recreational anglers were required to release all salmon $\geq$ 63 cm. These fish could be retained prior to 1985. Standardized weeks are shown in Table 4.

Commercial landings were compiled from original purchase slips forwarded from buyers and supplementary 'B' purchase slips from Protection and Regulations Branch field personnel. Landing information received from most buyers had been sized (small $\leq$ 2.7 kg; large > 2.7 kg) and weights and numbers of salmon indicated on most slips. However some buyers classify salmon $\leq$ 2.3 kg as small and > 2.3 kg as large. Landings from these plants would have a higher proportion of large salmon than those from plants using 2.7 kg as the weight differentiating small from large. Landings reported on supplementary 'B' slips were sized (small $\leq$ 2.7 kg; large > 2.7 kg), but numbers were usually not provided.

Unsized salmon reported on purchase slips and supplementary 'B' slips were portioned into small and large sizes based on the percentage of sized categories by section over the entire season (Ash and O'Connell 1986).

In 1989, sales of salmon to licensed buyers were primarily in the gutted head-on condition. A conversion factor of 1.2 was used to convert gutted head-on to round weight.

Counts of salmon at Torrent River fishway and fences at Western Arm and Fischells Brooks were obtained by Marine and Anadromous Fish Division personnel.

LANDINGS

Gulf Region - Commercial landings of total salmon catches by number were 35% lower than 1988 catches and 20-25% lower than previous 5 to 10 year means. Small salmon catches were 40% less than 1988 but 20% less than previous 5 and 10 year means. Large salmon catches were about 5% less than 1988 and 15% less than five year means but 45% less than previous 10 year means (Table 5). Similar declines from 1988 to 1989 and long term means were also evident for the Insular Newfoundland portion of the Gulf Region (Table 6).

The largest recreational catch of 1SW salmon in the region occurred in River of Ponds followed by the Humber River (Table 17). Over the entire region catch of 1SW salmon was about 55% lower than 1988, and 45% lower than previous 5, 10, and 15 year means (Table 18). Similar declines were also apparent for

the Insular Newfoundland portion of the Gulf Region recreational fishery (Table 19).

Salmon Fishing Area 12 - The commercial fishery has been closed in Salmon Fishing Area 12 since 1984. However, when this fishery was open, the greatest number of large salmon in the Gulf Region were caught in this area (Table 7).

The largest 1SW salmon recreational catch was on the La Poile River (Table 17). Catch of 1SW salmon during 1989 in SFA 12 was 60% of 1988 and about 50% of previous 5 and 10 year means (Table 20). However, mean 1SW catches from 1985-1989 were similar to those for 1978-1984 and above 1974-1977 mean catches suggesting that river 1SW salmon returns have been fairly stable since 1977 in SFA 12 (Fig. 3).

Salmon Fishing Area 13 - Commercial catch of total salmon was 45% lower than 1988 but 25% lower than the previous 5 year means and within 10% lower than previous 10 year means. Catches of small salmon numbers showed similar declines while large salmon catches were similar to 1988 and previous 5 and 10 year means (Table 8). However, mean small salmon commercial catch for 1985-1989 was above 1974-1984 mean catches, while mean large salmon commercial catch was similar to 1974-1977 means but above 1978-1984 means (Fig. 4).

Area K commercial small salmon catch in 1989 was about 50% lower than 1988 and 20% lower than five year means but was similar to 10 year means. Large salmon catches were similar to 1988 and long term means (Table 12).

Area L commercial small salmon catches were also about 50% lower than 1988 and five year means and 30% lower than ten year means. Large salmon catches exceeded 1988 and were similar to long term means (Table 13).

The largest 1SW salmon recreational catch occurred on the Humber River (Table 17). Overall 1SW salmon catches were 60% lower than 1988 and about 50% lower than 5 and 10 year means (Table 21). Area K 1SW salmon recreational catches were 50% of 1988 and long term means while Area L 1SW salmon catches were 67% lower than 1988 and 55% lower than long term means (Tables 25, 26). Mean 1SW recreational catches in SFA 13 for 1985-1989 were lower than 1974-1984 means (Fig. 4).

Returns of 1SW salmon to the counting fence at Fischells Brook were 350 compared to 593 in 1988.

Salmon Fishing Area 14 - Total commercial salmon catches in SFA 14 were about 30% lower than 1988 and about 15% lower than five and ten year means. Catches of 1SW salmon were 35% lower than 1988 and about 10% lower than long term means. Large salmon catches were similar to 1988 but about 20% lower than long term means (Table 9). In the Northern Peninsula portion of the Gulf Region small and large mean commercial salmon catches for 1985-1989 were above long term means (Fig. 5).

Catches of small and large salmon in Area A were similar to 1988 and above long term means (Table 10). Catches of small salmon in Area M were 60% lower than 1988 and 25-30% lower than long term means. Large salmon catches were 40% lower than 1988 but similar to long term means (Table 14).

Small salmon catches in Area N were about 25% lower than 1988 and 20% lower than long term means (Table 15). Large salmon catches exceeded 1988 and were similar to long term means. Small salmon catches in Area 0(50) exceeded 1988 and long term means. Large salmon commercial catches exceeded 1988 but were about 25% lower than long term means (Table 16). Small salmon mean commercial catches from 1985-1989 were above 1978-1984 but below 1974-1977 means, while large salmon mean commercial catches from 1985-1989 were below all long term means (Fig. 6).

The greatest catch of 1SW salmon was 45% lower than 1988 and 30% lower than long term means in SFA 14 (Table 22). In Area A(01) 1SW recreational catch was 50% lower than 1988 and 25% lower than long term means (Table 23). In Area M 1SW catch was 45% lower than 1988 and about 25% lower than long term means (Table 27). In Area N, 1SW recreational catch was 60% lower than 1988 and long term means (Table 28). In Area 0(50), 1SW salmon catch was 25% lower than 1988 but similar to long term means. MSW salmon catch in 1989 was 35% lower than 1988 and 20% lower than long term means (Table 29). Mean 1SW recreational catches in the Northern Peninsula and Southern Labrador for 1985-1989 were similar to 1974-1984 means (Figs. 5, 6). Mean MSW salmon recreational catches in Southern Labrador 1978-1989 were below 1974-1977 means (Fig. 6).

Returns to counting facilities were below 1989 values and five year means at Torrent River but above at Western Arm Brook where the recreational fishery was closed (Table 30).

FORECASTS

Numbers of large salmon taken in the commercial fishery of Section 50 were forecast to be 8566 for 1989 (Claytor and Mullins 1989). The actual catch was 4677 (Table 16). The method used to forecast large salmon catches in Section 50 is a regression of small salmon year i, to predict large salmon year i+1. This method predicts a large salmon catch of 7777 in 1990 (Fig. 7), which would be above the 5 year mean (Table 16). The formula for this regression is large salmon (year i+1) = small salmon (year i) X 0.79 + 2027, $R^2 = 0.51$, $p = 0.003$.

Commercial and sport catches of small and 1SW salmon in Areas M + N (year i+1) are forecast using Western Arm Brook smolts (year i). However, the 1984, 85 data point must be excluded. This method predicted a catch of 22,117 for 1989 (Claytor and Mullins 1989). The actual catch was 14,517 (Table 14, 15, 27, 28). This method predicted a catch of 17,708 for 1990 (Fig. 7), which would be similar to the five year mean (Tables 14, 15, 27, 28). The formula for this regression is catch (year i+1) = smolts (year i) X 1.13 + 4833, $R^2 = 0.40$, $P = 0.01$.

REFERENCES

Ash, E.G.M. and M.R. O'Connell. 1986. Atlantic salmon fishery in Newfoundland and Labrador, Commercial and Recreational 1983. Can. Fish. Aquat. Sci. Data Report No. 608: v + 304 p.

Claytor, R.R. and C.C. Mullins. 1989. Status of Atlantic salmon stocks, Gulf Region, Newfoundland and Labrador, 1988. CAFSAC Res. Doc. 89/2: 55 p.

Table 1. Boundaries of Management Zones, Statistical Areas and Statistical Sections, Gulf Region, Newfoundland and Labrador.

Management Zone	Statistical Area	Statistical Section	Boundary
12	J_2	38	Burgeo to Rose Blanche Point (commercial fishery)
12	J_2	38	Cinq Cerf Brook to Rose Blanche Point (recreational fishery)
12	J_2	39	Rose Blanche Point to Cape Ray
13	K	40	Cape Ray to Sandy Point
13	K	41	Sandy Point to Cape St. George
13	L	42	Cape St. George to Long Point
13	L	43	Long Point to Bluff Head
13	L	44	Bluff Head to Cape St. Gregory
14	M	45	Cape St. Gregory to Martins Point
14	M	46	Martins Point to Daniels Harbour
14	M	47	Daniels Harbour to Point Riche
14	N	48	Point Riche to Ferrole Point
14	N	49	Ferrole Point to Cape Norman
14	A	01	Cape Norman to Cape Bauld
14	O	50	Blanc Sablon to Cape Charles

Table 2. Map index and drainage area of Gulf Region, Newfoundland and Labrador rivers.

MAP #	RIVER NAME	DRAINAGE AREA (km2)
Statistical Area J_2		
1	East Bay Brook	57
2	LaPoile River	588
3	Farmer's Arm River	89
4	Garia River	228
5	Northwest Brook, Garia Bay	119
6	Burnt Island River	273
7	Isle aux Mort River	214
8	Grand Bay River	134
9	Northwest Brook, Grand Bay	65
10	Barachoix Brook, Cape Ray	49
Statistical Area K		
11	Bear Cove river	30
12	Little Codroy River	224
13	Grand Codroy River	956
14	Highlands River	183
15	Crabbe's River	551
16	Barachois River	241
17	Robinson's River	439
18	*Fischell's Brook	360
19	Flat Bay Brook	635
20	Little Barachois Brook	354
21	Southwest and Bottom Brooks	814
22	Harry's River	816
Statistical Area L		
23	Fox Island River	194
24	Serpentine River	433
25	Cook's Brook	101
26	Humber River	7,679
27	*Hughes Brook	132
28	Goose Arm River	212
Statistical Area M		
29	Trout River	254
30	*Lomond River	470

Table 2 (continued)

MAP #	RIVER NAME	DRAINAGE AREA (km2)
31	Deer Arm River	126
32	*Western Brook	192
33	Parson's Pond River	389
34	Portland Creek	985
35	River of Ponds	861
36	Little Brook Ponds	76
37	*Torrent River	619
38	East River, Hawkes Bay	136
39	Castor River	544
Statistical Area N		
40	St. Genevieve River	318
41	*West River, St. Barbe (Western Arm Brook)	149
42	East River, St. Barbe	43
43	Eddies Cove Brook	90
44	Big Brook	212
45	Watson's Brook	95
Statistical Area A (01)		
46	Pincent's Brook	65
47	Parker River	46
48	Bartlett's Brook	40
49	Upper Brook	39
50	East River, Pistolet Bay	61
Statistical Area O (50)		
51	Forteau River	389
52	L'Anse-au-Loup Brook	130
53	Pinware River	2,486

* Indicates river with a fishway or counting fence.

Table 3. 1989 recreational salmon seasons and closures due to low water levels for Gulf Region, Newfoundland and Labrador scheduled rivers. Names in parentheses refer to river segments.

RIVER NAME	QUOTA[1]	SEASON OPEN	SEASON CLOSED	CLOSURE DATES
SFA 12				
Statistical Area J2				
East Bay Brook		June 10	Sept. 4	no closures
La Poile River		June 10	Sept. 4	no closures
Farmer's Arm River		June 10	Sept. 4	no closures
Garia River		June 10	Sept. 4	no closures
Northwest Brook, Garia Bay		June 10	Sept. 4	no closures
Burnt Island River		June 10	Sept. 4	Aug. 4 - 8
Isle Aux Morts River		June 10	Sept. 4	Aug. 4 - 8
Grand Bay River		June 10	Sept. 10	Aug. 4 - 8
Northwest Brook, Grand Bay		June 3	Sept. 4	Aug. 4 - 8
Barachoix Brook, Cape Ray		Not scheduled		
SFA 13				
Statistical Area K				
Bear Cove Brook		June 3	Sept. 4	no closures
Little Codroy River		June 24	Sept. 4	July 24 - Aug. 8
Grand Codroy River (Main)		June 3	Sept. 4	July 24 - Aug. 8
Grand Codroy River (South)		June 3	Sept. 4	July 24 - Aug. 8
Grand Codroy River (North)		June 3	Sept. 4	July 24 - Aug. 8
Highlands River		Closed		
Crabbes River		June 3	Sept. 4	Aug. 4 - 8
Barachois River	175	June 3	Sept. 4	July 24 - Aug. 8
Robinsons River		June 3	Sept. 4	Aug. 4 - 8
Fischells Brook (Below fence)		Closed		
Fischells Brook (Above fence)	200	June 3	Sept. 4	July 24 - Aug. 8
Flat Bay Brook	250	June 3	Sept. 4	Aug. 4 - 8
Little Barachois Brook		June 24	Sept. 4	Aug. 4 - 8
Southwest and Bottom Brooks		June 3	Sept. 4	July 24 - 28 & Aug. 4 - 8
Harry's River (Low. & Mid.)	350	June 24	Sept. 4	no closures
Harry's River (Pinchgut)		June 24	Sept. 4	no closures
Harry's River (Home Pool)		June 24	Sept. 4	no closures
Harry's River (Stag Pond)		June 24	Sept. 4	no closures

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Table 3. (Continued)

RIVER NAME	QUOTA[1]	SEASON OPEN	SEASON CLOSED	CLOSURE DATES
Statistical Area L				
Fox Island River	50	June 17	Sept. 4	Aug. 4 - Sept. 4
Serpentine River (Lower)[2]	100	June 17	Sept. 4	Aug. 4 - Sept. 4
Serpentine River (Upper)		June 17	Sept. 4	Aug. 4 - Sept. 4
Cook's Brook		July 1	Sept. 4	no closures
Humber River (Lower)		June 3	Sept. 4	no closures
Humber River (Deer Lake)[3]		June 3	Sept. 10	no closures
Humber River (Little Falls)		June 3	Sept. 10	Aug. 7 - 8
Humber River (Big Falls)		June 3	Sept. 10	Aug. 7 - 8
Humber River (Adies Stream)		June 3	Sept. 10	July 24 - Aug. 8
Humber River (Adies Lake)		June 3	July 31	no closures
Humber River (Harriman's)		June 3	Sept. 10	Aug. 7 - 8
Humber River (Taylor's Bk.)		June 3	Sept. 4	July 24 - Aug. 8
Hughes Brook		Closed		
Goose Arm River		June 24	Sept. 4	Aug. 7 - 8
SFA 14				
Statistical Area M				
Trout River		June 17	Sept. 4	no closures
Lomond River	350	June 17	Sept. 4	July 24 - Aug. 8
Deer Arm River		June 17	Aug. 31	no closures
Western Brook		Closed		
Parsons Pond River		June 17	Sept. 4	no closures
Portland Creek (Main)		June 17	Sept. 10	no closures
Portland Creek (Upper)		June 17	Sept. 10	no closures
Portland Creek Feeder		June 17	Sept. 4	no closures
Bound Brook		Closed		
River of Ponds (Lower)		June 17	Sept. 4	no closures
River of Ponds (Upper)		June 17	Sept. 4	no closures
River of Ponds (Bluey)		June 17	Sept. 4	no closures
Little Brook Ponds		June 17	Sept. 4	no closures
Torrent River[4]		Aug. 3	Sept. 4	no closures
East River, Hawkes Bay		June 17	Sept. 4	Aug. 3 - 8
Statistical Area N				
Castor River		June 17	Sept. 4	Aug. 4 - 8

(Continued Next Page)

Table 3. (Continued)

RIVER NAME	QUOTA[1]	SEASON OPEN	SEASON CLOSED	CLOSURE DATES
St. Genevieve River (Lower)		June 3	Sept. 4	no closures
St. Genevieve River (Falls)		June 3	Sept. 4	no closures
St. Genevieve River (Upper)		June 3	Sept. 4	no closures
West River, St. Barbe			Closed	
East River, St. Barbe		June 17	Sept. 4	no closures
Eddies Cove Brook			Not scheduled	
Big Brook (Lower)		June 17	Sept. 4	July 29 - noon Aug. 18
Big Brook (Upper)		June 17	Sept. 4	July 29 - noon Aug. 18
Watson's Brook	50	June 17	Sept. 4	July 29 - noon Aug. 18
Statistical Area A (01)				
Pincent's Brook	10	July 17	Sept. 4	no closures
Parker River		July 1	Sept. 4	July 24 - noon Aug. 18
Barlett's Brook		June 17	Sept. 4	no closures
Upper Brook		June 17	Sept. 4	no closures
East River, Pistolet Bay		June 17	Sept. 4	no closures
Statistical Area O (50)				
Forteau River		June 3	Sept. 10	no closures
L'Anse-au-Loup Brook		June 3	Sept. 10	no closures
Pinware River		June 3	Sept. 10	no closures

[1] Quotas apply to the total catch of one-sea-winter salmon on all river segments.
[2] Quota taken.
[3] North Brook closed.
[4] River open to angling after 1000 salmon had passed through the fishway.

Table 4. Standardized weeks used for processing Atlantic Salmon Catch Statistics.

WEEK	MONTH	DAYS	
1	January	01-07	
2	January	08-14	January
3	January	15-21	
4	January	22-28	
5	February	29-04	
6	February	05-11	February
7	February	12-18	
8	February	19-25	
9	March	26-04	
10	March	05-11	
11	March	18-18	March
12	March	19-25	
13	March	26-01	
14	April	02-08	
15	April	09-15	April
16	April	16-22	
17	April	23-29	
18	May	30-06	
19	May	07-13	
20	May	14-02	May
21	May	21-27	
22	May	28-03	
23	June	04-10	
24	June	11-17	June
25	June	18-24	
26	June	25-01	
27	July	02-08	
28	July	09-15	July
29	July	16-22	
30	July	23-29	

(Continued Next Page)

Table 4. (Continued)

WEEK	MONTH	DAYS	
31	August	30-05	
32	August	06-12	
33	August	13-19	August
34	August	20-26	
35	August	27-02	
36	September	03-09	
37	September	10-16	September
38	September	17-23	
39	September	24-30	
40	October	01-07	
41	October	08-14	October
42	October	15-21	
43	October	22-28	
44	November	29-04	
45	November	05-11	
46	November	12-18	November
47	November	19-25	
48	November	26-02	
49	December	03-09	
50	December	10-16	December
51	December	17-23	
52	December	24-31	

Table 5. Commercial landings of small and large Atlantic salmon in the gulf Region, Newfoundland and Labrador, 1974-1989. Weight in kilograms. Area J_2 fishery closed 1984-1989, hence years 1984-1989 are not directly comparable with earlier years.

1974-1989 ATLANTIC SALMON COMMERCIAL CATCH

GULF REGION

	SMALL		LARGE		TOTAL		PERCENT SMALL	
YEAR	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER
1974	114526	67108	259585	52074	374109	119182	30.6	56.3
1975	99309	55888	233598	49718	332908	105606	29.8	52.9
1976	133685	75736	296829	66049	430513	141785	31.1	53.4
1977	71668	39957	264647	57669	336315	97626	21.3	40.9
1978	44315	24094	155216	33118	199531	57212	22.2	42.1
1979	78098	42512	88525	19491	166624	62003	46.9	68.6
1980	102292	49306	178753	36656	281043	85962	36.4	57.4
1981	73467	40480	138412	28326	211880	68806	34.7	58.8
1982	71919	38809	111579	25059	183497	63868	39.2	60.8
1983	62784	35429	101607	23190	164392	58619	38.2	60.4
1984	43423	23287	54838	11610	98261	34897	44.2	66.7
1985	46930	26879	33433	7775	80363	34654	58.4	77.6
1986	89668	51216	68973	15675	158641	66891	56.5	76.6
1987	116358	61072	95918	19443	212274	80555	54.8	75.8
1988	115989	61944	57800	12052	173789	73997	66.7	83.7
1989	66405	35845	51851	11428	118256	47273	56.2	75.8
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:								
PREV 5	82474	44880	62192	13311	144666	58199	56.1	76.1
CL=+/-	44385	23094	28340	5494	67731	27219	10.0	7.6
N	5	5	5	5	5	5	5	5
PREV 10	80093	43093	92984	19928	173076	63025	47.6	68.6
CL=+/-	18543	9305	30801	6240	40836	12204	7.8	6.7
N	10	10	10	10	10	10	10	10

Table 6. Commercial landings of small and large Atlantic salmon in the Insular Newfoundland portion of the Gulf Region, 1974-1989. Weight in kilograms Area J_2 fishery closed 1984-1989, hence years 1984-1989 are not directly comparable with earlier years.

1974-1989 ATLANTIC SALMON COMMERCIAL CATCH

GULF REGION - INSULAR NEWFOUNDLAND

	SMALL		LARGE		TOTAL		PERCENT SMALL	
YEAR	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER
1974	95871	57780	181842	36211	277711	93991	34.5	61.5
1975	62639	36594	170184	34966	232824	71560	26.9	51.1
1976	106050	62584	228413	50860	334462	113444	31.7	55.2
1977	49147	28690	173214	39005	222361	67695	22.1	42.4
1978	36666	20068	100145	21403	136811	41471	26.8	48.4
1979	63002	35318	71493	15617	134496	50935	46.8	69.3
1980	83415	40813	132585	27518	215998	68331	38.6	59.7
1981	59786	33822	99927	20720	159713	54542	37.4	62.0
1982	57384	31430	84384	19093	141767	50523	40.5	62.2
1983	56204	32137	68342	15701	124547	47838	45.1	67.2
1984	38582	20866	24994	5392	63576	26258	60.7	79.5
1985	35831	19419	17517	3821	53348	23240	67.2	83.6
1986	75066	42920	42770	10333	117836	53253	63.7	80.6
1987	93371	49683	37748	8329	131117	58052	71.2	85.6
1988	100834	54857	35185	7461	136019	62319	74.1	88.0
1989	50022	28230	29851	6751	79873	34981	62.6	80.7
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:								
PREV 5	68737	37549	31643	7067	100379	44624	67.4	83.5
CL=+/-	37606	20427	12683	3151	48433	22916	6.7	4.3
N	5	5	5	5	5	5	5	5
PREV 10	66348	36127	61495	13399	127842	49529	54.5	73.8
CL=+/-	15503	8117	26203	5447	32777	10304	10.2	7.7
N	10	10	10	10	10	10	10	10

Table 7. Commercial landings of small and large Atlantic salmon in Salmon Fishing Area 12, 1974-1989. Weight in kilograms.

1974-1989 ATLANTIC SALMON COMMERCIAL CATCH

SALMON FISHING AREA: 12

	SMALL		LARGE		TOTAL		PERCENT SMALL	
YEAR	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER
1974	60260	35446	151298	29663	211558	65109	28.5	54.4
1975	30843	17138	143112	29206	173955	46344	17.7	37.0
1976	50646	29789	198929	44200	249574	73989	20.3	40.3
1977	8604	4780	126286	28700	134890	33480	6.4	14.3
1978	2212	1055	74302	15809	76514	16864	2.9	6.3
1979	3701	2060	55556	12077	59257	14137	6.2	14.6
1980	14899	7385	93584	19253	108482	26638	13.7	27.7
1981	4591	2485	76247	15723	80838	18208	5.7	13.6
1982	3931	2108	64933	14734	68863	16842	5.7	12.5
1983	6658	3593	46694	10644	53352	14237	12.5	25.2
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:								
PREV 10	6756	3526	67403	14486	74158	18012	8.8	18.7
CL=+/-	5834	2786	22717	4159	27102	6364	5.0	8.9
N	5	5	5	5	5	5	5	5

Table 8. Commercial landings of small and large Atlantic salmon in Salmon Fishing Area 13, 1974-1989. Weight in kilograms.

1974-1989 ATLANTIC SALMON COMMERCIAL CATCH

SALMON FISHING AREA: 13

	SMALL		LARGE		TOTAL		PERCENT SMALL	
YEAR	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER
1974	19784	12858	22886	5009	42670	17867	46.4	72.0
1975	13220	8422	15320	3289	28541	11711	46.3	71.9
1976	24960	15353	20176	4573	45136	19926	55.3	77.1
1977	24199	14633	29361	6482	53560	21115	45.2	69.3
1978	17300	10136	16247	3563	33546	13699	51.6	74.0
1979	23091	13661	8765	1938	31857	15599	72.5	87.6
1980	40230	19554	24826	5234	65056	24788	61.8	78.9
1981	27232	15327	10514	2260	37746	17587	72.1	87.1
1982	19742	11341	11188	2425	30930	13766	63.8	82.4
1983	20336	12431	12227	2936	32563	15367	62.5	80.9
1984	27274	14832	15120	3294	42394	18126	64.3	81.8
1985	18612	10144	13662	2998	32274	13142	57.7	77.2
1986	51465	29675	27859	6704	79324	36379	64.9	81.6
1987	45039	24442	21284	4616	66321	29098	67.9	84.0
1988	57744	31916	19848	4125	77593	36041	74.4	88.6
1989	26947	15751	18364	4086	45311	19837	59.5	79.4
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:								
PREV 5	40027	22202	19555	4347	59581	26557	65.8	82.6
CL=+/-	20507	11696	6981	1821	26344	13080	7.5	5.1
N	5	5	5	5	5	5	5	5
PREV 10	33077	18332	16529	3653	49606	21989	66.2	83.0
CL=+/-	10278	5571	4676	1078	14371	6433	3.9	2.7
N	10	10	10	10	10	10	10	10

Table 9. Commercial landings of small and large Atlantic salmon in Salmon Fishing Area 14, 1974-1989. Weight in kilograms.

1974-1989 ATLANTIC SALMON COMMERCIAL CATCH

SALMON FISHING AREA: 14

	SMALL		LARGE		TOTAL		PERCENT SMALL	
YEAR	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER
1974	34482	18804	85401	17402	119881	36206	28.8	51.9
1975	55246	30328	75166	17223	130412	47551	42.4	63.8
1976	58079	30594	77724	17276	135803	47870	42.8	63.9
1977	38865	20544	109000	22487	147865	43031	26.3	47.7
1978	24803	12903	64667	13746	89471	26649	27.7	48.4
1979	51306	26791	24204	5476	75510	32267	67.9	83.0
1980	47163	22367	60343	12169	107505	34536	43.9	64.8
1981	41644	22668	51651	10343	93296	33011	44.6	68.7
1982	48246	25360	35458	7900	83704	33260	57.6	76.2
1983	35790	19405	42686	9610	78477	29015	45.6	66.9
1984	16149	8455	39718	8316	55867	16771	28.9	50.4
1985	28318	16735	19771	4777	48089	21512	58.9	77.8
1986	38203	21541	41114	8971	79317	30512	48.2	70.6
1987	71319	36630	74634	14827	145953	51457	48.9	71.2
1988	58245	30028	37952	7927	96196	37956	60.5	79.1
1989	39458	20094	33487	7342	72945	27436	54.1	73.2
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:								
PREV 5	42447	22678	42638	8964	85084	31642	49.1	69.8
CL=+/-	27711	13709	24673	4537	48424	17087	15.6	14.3
N	5	5	5	5	5	5	5	5
PREV 10	43638	22998	42753	9032	86391	32030	50.5	70.9
CL=+/-	11076	5445	11597	2123	19626	6643	7.9	6.6
N	10	10	10	10	10	10	10	10

Table 10. Commercial landings of small and large Atlantic salmon in Statistical Area 1, Section 1, 1974-1989. Weight in kilograms.

1974-1989 ATLANTIC SALMON COMMERCIAL CATCH

STATISTICAL AREA: A

	SMALL		LARGE		TOTAL		PERCENT SMALL	
YEAR	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER
1974	753	379	333	71	1085	450	69.4	84.2
1975	1616	808	810	184	2426	992	66.6	81.5
1976	889	463	757	184	1646	647	54.0	71.6
1977	869	436	1055	226	1924	662	45.2	65.9
1978	2699	1347	990	212	3689	1559	73.2	86.4
1979	2230	1110	839	199	3069	1309	72.7	84.8
1980	594	280	1042	216	1635	496	36.3	56.5
1981	654	340	1631	331	2285	671	28.6	50.7
1982	860	451	378	78	1238	529	69.5	85.3
1983	1059	587	720	156	1779	743	59.5	79.0
1984	1589	795	66	14	1655	809	96.0	98.3
1985	1130	565	50	11	1180	576	95.8	98.1
1986	1195	804	1120	285	2315	1089	51.6	73.8
1987	2122	1076	1206	227	3328	1303	63.8	82.6
1988	2394	1227	1365	254	3759	1482	63.7	82.8
1989	1995	1089	1171	266	3166	1355	63.0	80.4
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:								
PREV 5	1686	893	761	158	2447	1052	74.2	87.1
CL=+/-	694	323	805	167	1353	454	25.4	13.3
N	5	5	5	5	5	5	5	5
PREV 10	1383	724	842	177	2224	901	63.8	79.2
CL=+/-	475	239	385	79	641	261	15.7	11.1
N	10	10	10	10	10	10	10	10

Table 11. Commercial landings of small and large Atlantic salmon in Statistical Area J_2, 1974-1983. Weight in kilograms.

1974-1989 ATLANTIC SALMON COMMERCIAL CATCH

STATISTICAL AREA: J

	SMALL		LARGE		TOTAL		PERCENT SMALL	
YEAR	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER
1974	60260	35446	151298	29663	211558	65109	28.5	54.4
1975	30843	17138	143112	29206	173955	46344	17.7	37.0
1976	50646	29789	198929	44200	249574	73989	20.3	40.3
1977	8604	4780	126286	28700	134890	33480	6.4	14.3
1978	2212	1055	74302	15809	76514	16864	2.9	6.3
1979	3701	2060	55556	12077	59257	14137	6.2	14.6
1980	14899	7385	93584	19253	108482	26638	13.7	27.7
1981	4591	2485	76247	15723	80838	18208	5.7	13.6
1982	3931	2108	64933	14734	68863	16842	5.7	12.5
1983	6658	3593	46694	10644	53352	14237	12.5	25.2
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:								
PREV 10	6756	3526	67403	14486	74158	18012	8.8	18.7
CL=+/-	5834	2786	22717	4159	27102	6364	5.0	8.9
N	5	5	5	5	5	5	5	5

Table 12. Commercial landings of small and large Atlantic salmon in Statistical Area K, 1974-1989. Weight in kilograms.

1974-1989 ATLANTIC SALMON COMMERCIAL CATCH

STATISTICAL AREA: K

	SMALL		LARGE		TOTAL		PERCENT SMALL	
YEAR	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER
1974	15670	10443	15810	3595	31480	14038	49.8	74.4
1975	8412	5606	11175	2431	19588	8037	42.9	69.8
1976	21277	13307	16460	3748	37737	17055	56.4	78.0
1977	19156	11976	22297	4958	41453	16934	46.2	70.7
1978	11835	7401	11568	2572	23402	9973	50.6	74.2
1979	16871	10550	6576	1462	23447	12012	72.0	87.8
1980	24030	11441	16070	3416	40100	14857	59.9	77.0
1981	18923	11097	6937	1573	25860	12670	73.2	87.6
1982	10425	6466	6477	1432	16902	7898	61.7	81.9
1983	12440	8228	9063	2289	21503	10517	57.9	78.2
1984	16335	9075	8156	1812	24491	10887	66.7	83.4
1985	11903	6613	9731	2162	21634	8775	55.0	75.4
1986	24657	15024	19689	4718	44346	19742	55.6	76.1
1987	28544	16132	17373	3805	45916	19936	62.2	80.9
1988	36498	21824	15307	3235	51805	25059	70.5	87.1
1989	17439	10972	13175	3062	30614	14034	57.0	78.2
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:								
PREV 5	23587	13734	14051	3146	37638	16880	62.0	80.6
CL=+/-	12126	7483	6140	1477	16925	8468	8.4	6.1
N	5	5	5	5	5	5	5	5
PREV 10	20063	11645	11538	2590	31600	14235	63.5	81.5
CL=+/-	5946	3432	3596	813	8970	4010	4.8	3.5
N	10	10	10	10	10	10	10	10

Table 13. Commercial landings of small and large Atlantic salmon in Statistical Area L, 1974-1989. Weight in kilograms.

1974-1989 ATLANTIC SALMON COMMERCIAL CATCH

STATISTICAL AREA: L

	SMALL		LARGE		TOTAL		PERCENT SMALL	
YEAR	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER
1974	4114	2415	7076	1414	11190	3829	36.8	63.1
1975	4808	2816	4145	858	8953	3674	53.7	76.6
1976	3683	2046	3716	825	7399	2871	49.8	71.3
1977	5043	2657	7064	1524	12107	4181	41.7	63.5
1978	5465	2735	4679	991	10144	3726	53.9	73.4
1979	6220	3111	2189	476	8410	3587	74.0	86.7
1980	16200	8113	8756	1818	24956	9931	64.9	81.7
1981	8309	4230	3577	687	11886	4917	69.9	86.0
1982	9317	4875	4711	993	14028	5868	66.4	83.1
1983	7896	4203	3164	647	11060	4850	71.4	86.7
1984	10939	5757	6964	1482	17903	7239	61.1	79.5
1985	6709	3531	3931	836	10640	4367	63.1	80.9
1986	26808	14651	8170	1986	34978	16637	76.6	88.1
1987	16495	8310	3911	811	20405	9162	80.8	90.7
1988	21246	10092	4541	890	25788	10982	82.4	91.9
1989	9508	4779	5189	1024	14697	5803	64.7	82.4
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:								
PREV 5	16439	8468	5503	1201	21943	9677	72.8	86.2
CL=+/-	9924	5290	2419	644	11297	5709	12.4	7.1
N	5	5	5	5	5	5	5	5
PREV 10	13014	6687	4991	1063	18005	7754	71.1	85.5
CL=+/-	4959	2599	1581	370	6082	2873	5.3	3.0
N	10	10	10	10	10	10	10	10

Table 14. Commercial landings of small and large Atlantic salmon in Statistical Area M, 1974-1989. Weight in kilograms.

1974-1989 ATLANTIC SALMON COMMERCIAL CATCH

STATISTICAL AREA: M

	SMALL		LARGE		TOTAL		PERCENT SMALL	
YEAR	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER
1974	8933	5257	5207	1043	14139	6300	63.2	83.4
1975	10098	5937	6901	1444	16999	7381	59.4	80.4
1976	21568	11986	7285	1620	28853	13606	74.8	88.1
1977	8430	4437	9949	2166	18379	6603	45.9	67.2
1978	12082	6046	5795	1225	17877	7271	67.6	83.2
1979	22061	11038	4179	926	26240	11964	84.1	92.3
1980	13351	6668	7646	1651	20997	8319	63.6	80.2
1981	13290	8300	5866	1227	19156	9527	69.4	87.1
1982	12115	6528	4115	887	16230	7415	74.6	88.0
1983	23551	13100	6804	1515	30356	14615	77.6	89.6
1984	4247	2359	6892	1436	11139	3795	38.1	62.2
1985	8274	4597	2466	514	10740	5111	77.0	89.9
1986	7171	3952	6219	1486	13390	5438	53.6	72.7
1987	24714	12059	11085	2530	35799	14589	69.0	82.7
1988	26700	13807	10509	2390	37209	16197	71.8	85.2
1989	10619	5541	6522	1553	17141	7094	62.0	78.1
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:								
PREV 5	14221	7355	7434	1671	21655	9026	61.9	78.5
CL=+/-	13175	6449	4356	1017	16888	7291	19.7	13.8
N	5	5	5	5	5	5	5	5
PREV 10	15547	8241	6578	1456	22126	9697	67.9	83.0
CL=+/-	5779	2908	1943	453	7036	3169	9.6	6.6
N	10	10	10	10	10	10	10	10

Table 15. Commercial landings of small and large Atlantic salmon in Statistical Area N, 1974-1989. Weight in kilograms.

1974-1989 ATLANTIC SALMON COMMERCIAL CATCH

STATISTICAL AREA: N

	SMALL		LARGE		TOTAL		PERCENT SMALL	
YEAR	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER
1974	6141	3840	2118	425	8259	4265	74.4	90.0
1975	6862	4289	4041	843	10903	5132	62.9	83.6
1976	7987	4993	1266	283	9253	5276	86.3	94.6
1977	7045	4404	6563	1431	13608	5835	51.8	75.5
1978	2373	1484	2811	594	5185	2078	45.8	71.4
1979	11919	7449	2154	477	14073	7926	84.7	94.0
1980	14341	6926	5487	1164	19828	8090	72.3	85.6
1981	14019	7370	5669	1179	19688	8549	71.2	86.2
1982	20736	11002	3770	969	24506	11971	84.6	91.9
1983	4600	2426	1897	450	6497	2876	70.8	84.4
1984	5472	2880	2916	648	8388	3528	65.2	81.6
1985	7815	4113	1339	298	9154	4411	85.4	93.2
1986	15235	8489	7572	1858	22807	10347	66.8	82.0
1987	21496	12106	4173	956	25669	13062	83.7	92.7
1988	13996	7907	3463	692	17458	8599	80.2	92.0
1989	10461	5849	3794	846	14255	6695	73.4	87.4
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:								
PREV 5	12803	7099	3893	890	16695	7989	76.3	88.3
CL=+/-	7890	4578	2864	732	9704	4981	11.9	7.4
N	5	5	5	5	5	5	5	5
PREV 10	12963	7067	3844	869	16807	7936	76.5	88.4
CL=+/-	4103	2283	1390	330	4973	2463	5.7	3.5
N	10	10	10	10	10	10	10	10

Table 16. Commercial landings of small and large Atlantic salmon in Statistical Area O, 1974-1989. Weight in kilograms.

1974-1989 ATLANTIC SALMON COMMERCIAL CATCH

STATISTICAL AREA: O

	SMALL		LARGE		TOTAL		PERCENT SMALL	
YEAR	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER
1974	18655	9328	77743	15863	96398	25191	19.4	37.0
1975	36670	19294	63414	14752	100084	34046	36.6	56.7
1976	27635	13152	68416	15189	96051	28341	28.8	46.4
1977	22521	11267	91433	18664	113954	29931	19.8	37.6
1978	7649	4026	55071	11715	62720	15741	12.2	25.6
1979	15096	7194	17032	3874	32128	11068	47.0	65.0
1980	18877	8493	46168	9138	65045	17631	29.0	48.2
1981	13681	6658	38485	7606	52167	14264	26.2	46.7
1982	14535	7379	27195	5966	41730	13345	34.8	55.3
1983	6580	3292	33265	7489	39845	10781	16.5	30.5
1984	4841	2421	29844	6218	34685	8639	14.0	28.0
1985	11099	7460	15916	3954	27015	11414	41.1	65.4
1986	14602	8296	26203	5342	40805	13638	35.8	60.8
1987	22987	11389	58170	11114	81157	22503	28.3	50.6
1988	15155	7087	22615	4591	37770	11678	40.1	60.7
1989	16383	7615	22000	4677	38383	12292	42.7	62.0
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:								
PREV 5	13737	7331	30550	6244	44286	13574	31.9	53.1
CL=+/-	8199	4003	20207	3540	26372	6580	13.9	18.7
N	5	5	5	5	5	5	5	5
PREV 10	13745	6967	31489	6529	45235	13496	31.3	51.1
CL=+/-	3804	1822	9415	1672	11833	2855	7.6	9.5
N	10	10	10	10	10	10	10	10

Table 17. Atlantic salmon recreational catch, 1989, for Gulf Region, Newfoundland River. TOTALROD, Rod Days; TOTAL1SW, 1SW catch; TOTALMSW, MSW catch; TOTALSAL, 1SW+MSW catch.

	TOTALROD	TOTAL1SW	TOTALMSW	TOTALSAL
	SUM	SUM	SUM	SUM
RNUM				
Pincents Brook	86	6	0	6
Parker River (West River)	786	20	0	20
Bartletts Brook	146	12	0	12
Upper Brook	258	17	0	17
East River, Pistolet Bay	148	21	0	21
La Poile River	654	153	6	159
Farmers Arm River	173	19	0	19
Garia River	234	53	3	56
Northwest River, Garia Bay	124	10	0	10
Burnt Island River (Grandys Brook)	785	142	0	142
Isle aux Morts River	374	63	1	64
Grand Bay River (incl. N.W. Brook)	313	120	0	120
Bear Cove River	293	40	0	40
Little Codroy River	324	56	0	56
Grand Codroy River	3906	635	66	701
Crabbes River	419	47	5	52
Barachois River	395	79	1	80
Robinsons River	971	116	11	127
Fischells Brook	110	17	0	17
Flat Bay Brook	612	130	1	131
Little Barachois Brook	89	15	0	15
Southwest and Bottom Brooks	1290	258	16	274
Harrys River	1961	324	5	329
Fox Island River (Fox Brook)	375	38	0	38
Serpentine River (Coal River)	494	107	15	122
Cooks Brook	195	33	1	34
Humber River	6279	1217	10	1227
Goose Arm River	835	62	0	62
Trout River	224	3	0	3
Lomond River	1714	270	5	275
Parsons Pond River	294	19	0	19
Portland Creek	3906	374	38	412
River of Ponds	4065	1325	0	1325
Little Brook Ponds	377	51	0	51

Table 17. (Continued).

	TOTALROD	TOTALISW	TOTALMSW	TOTALSAL
	SUM	SUM	SUM	SUM
RNUM				
Torrent River	559	143	0	143
East River (Big East River)	489	56	0	56
Castor River	1207	378	1	379
Ste. Genevieve River	1499	438	0	438
East River (Eastern Arm Brook)	46	17	0	17
Big Brook	289	47	0	47
Watsons Brook (Watts Bight Brook)	135	6	0	6
Forteau River	1478	355	6	361
LAnse-Au-Loup River	777	136	1	137
Pinware River	2640	682	46	728

Table 18. Recreational catch of Atlantic salmon, Gulf Region, 1974-1989.

RECREATIONAL CATCH OF ATLANTIC SALMON IN GULF REGION,
NEWFOUNDLAND AND LABRADOR, 1974-1989.

YEAR	EFFORT ROD-DAYS	1SW <63CM	MSW >63CM	TOTAL CATCH	CPUE	PERCENT 1SW
1974	43018	11707	1333	13040	0.30	.
1975	44896	18400	1150	19550	0.44	91
1976	54890	20559	1041	21600	0.39	95
1977	46697	14639	2162	16801	0.36	90
1978	35473	9469	1130	10599	0.30	93
1979	34528	14221	301	14522	0.42	97
1980	40183	13414	1539	14953	0.37	90
1981	47948	17940	1037	18977	0.40	93
1982	47448	17155	797	17952	0.38	96
1983	47670	12804	817	13621	0.29	95
1984	46236	15487	649	16136	0.35	95
1985	40930	11169	(316) 416	11585	0.28	97
1986	49245	14402	(826)1010	15412	0.31	92
1987	43153	13354	(410) 625	13979	0.32	96
1988	52638	17473	(600) 851	18324	0.35	94
1989	42328	8110	(185) 238	8348	0.20	99
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:						
PREV 5	46440.4	14377.0	710.2	15087.2	0.32	95.0
CL=+/-	4676.8	2922.2	282.6	3115.0	0.02	1.0
N	5	5	5	5	5	5
PREV 10	44997.9	14741.9	804.2	15546.1	0.35	94.5
CL=+/-	5297.2	1593.6	250.0	1667.4	0.03	1.3
N	10	10	10	10	10	10
PREV 15	44996.9	14812.9	990.5	15803.4	0.35	93.8
CL=+/-	5656.5	1679.9	255.6	1706.3	0.02	1.6
N	15	15	15	15	15	15

Numbers in parentheses refer to hooked and released fish.
Percent 1SW is calculated by year of smolt migration.

Table 19. Recreational catch of Atlantic salmon in Insular Newfoundland, Gulf Region, 1974-1989.

RECREATIONAL CATCH OF ATLANTIC SALMON IN GULF REGION,
INSULAR NEWFOUNDLAND, 1974-1989.

YEAR	EFFORT ROD-DAYS	1SW <63CM	MSW >63CM	TOTAL CATCH	CPUE	PERCENT 1SW
1974	40305	10967	1042	12009	0.30	.
1975	42716	17331	996	18327	0.43	92
1976	50994	18061	731	18792	0.37	96
1977	42779	12977	1569	14546	0.34	92
1978	33060	8896	947	9843	0.30	93
1979	32379	13320	182	13502	0.42	98
1980	37707	12476	1202	13678	0.36	92
1981	44595	16242	817	17059	0.38	94
1982	44169	15884	717	16601	0.38	96
1983	44141	10804	687	11491	0.26	96
1984	42239	14500	464	14964	0.35	96
1985	37266	10077	316	10393	0.28	98
1986	44602	13331	826	14157	0.32	92
1987	38160	11467	410	11877	0.31	97
1988	46931	15881	600	16481	0.35	95
1989	37433	6937	185	7122	0.19	99
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:						
PREV 5	41839.6	13051.2	523.2	13574.4	0.32	95.8
CL=+/-	4128.3	2881.4	245.9	3023.7	0.03	1.1
N	5	5	5	5	5	5
PREV 10	41218.9	13398.2	622.1	14020.3	0.34	95.3
CL=+/-	4585.2	1581.7	211.5	1641.6	0.03	1.2
N	10	10	10	10	10	10
PREV 15	41469.5	13480.9	767.1	14248.0	0.34	94.7
CL=+/-	5042.0	1534.3	198.7	1550.2	0.02	1.4
N	15	15	15	15	15	15

Numbers of MSW salmon from 1985-89 refer to hooked and released fish.
Percent 1SW is calculated by year of smolt migration.

Table 20. Recreational catch of Atlantic salmon, Salmon Fishing Area 12, 1974-1989.

SALMON FISHING AREA 12
TOTAL (ESTIMATED + OBSERVED) ANGLING CATCH, 1974-1989

YEAR	EFFORT ROD-DAYS	1SW <63CM	MSW >63CM	TOTAL CATCH	CPUE	PERCENT 1SW
1974	1423	658	13	671	0.47	.
1975	1204	510	20	530	0.44	97
1976	926	297	5	302	0.33	99
1977	1238	558	48	606	0.49	86
1978	1305	366	20	386	0.30	97
1979	1711	733	10	743	0.43	97
1980	2175	820	29	849	0.39	96
1981	2038	1060	17	1077	0.53	98
1982	2810	1555	15	1570	0.56	99
1983	2648	667	8	675	0.25	99
1984	3590	1922	68	1990	0.55	91
1985	3722	1097	30	1127	0.30	98
1986	3430	938	33	971	0.28	97
1987	2212	829	27	856	0.39	97
1988	3607	1413	23	1436	0.40	97
1989	2657	560	10	570	0.21	99
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:						
PREV 5	3312.2	1239.8	36.2	1276.0	0.39	96.8
CL=+/-	623.8	546.8	22.5	564.6	0.10	0.8
N	5	5	5	5	5	5
PREV 10	2794.3	1103.4	26.0	1129.4	0.40	97.5
CL=+/-	748.9	290.3	12.2	298.4	0.07	0.7
N	10	10	10	10	10	10
PREV 15	2269.3	894.9	24.4	919.3	0.41	97.1
CL=+/-	980.3	250.8	9.1	255.7	0.06	0.9
N	15	15	15	15	15	15

Numbers of MSW salmon from 1985-89 refer to hooked and released fish.
Percent 1SW is calculated by year of smolt migration.

Table 21. Recreational catch of Atlantic salmon, Salmon Fishing Area 13, 1974-1989.

SALMON FISHING AREA 13
TOTAL (ESTIMATED + OBSERVED) ANGLING CATCH, 1974-1989

YEAR	EFFORT ROD-DAYS	1SW <63CM	MSW >63CM	TOTAL CATCH	CPUE	PERCENT 1SW
1974	29313	7189	916	8105	0.28	.
1975	32253	12003	886	12889	0.40	89
1976	32922	10383	626	11009	0.33	95
1977	24474	6712	1049	7761	0.32	91
1978	19686	5289	855	6144	0.31	89
1979	16383	6009	113	6122	0.37	98
1980	21313	7913	993	8906	0.42	86
1981	23839	9300	663	9963	0.42	92
1982	25246	9566	595	10161	0.40	94
1983	25473	6337	610	6947	0.27	94
1984	22152	7771	309	8080	0.36	95
1985	20137	5302	257	5559	0.28	97
1986	25707	7346	691	8037	0.31	88
1987	20887	6018	342	6360	0.30	96
1988	24356	8217	406	8623	0.35	94
1989	18548	3174	131	3305	0.18	98
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:						
PREV 5	22647.8	6930.8	401.0	7331.8	0.32	94.2
CL=+/-	2341.3	1523.1	212.2	1620.3	0.03	1.8
N	5	5	5	5	5	5
PREV 10	22549.3	7377.9	497.9	7875.8	0.35	93.4
CL=+/-	2962.9	1032.4	185.7	1140.4	0.04	1.7
N	10	10	10	10	10	10
PREV 15	24276.1	7690.3	620.7	8311.1	0.34	92.7
CL=+/-	4580.2	1072.9	158.9	1127.6	0.03	1.7
N	15	15	15	15	15	15

Numbers of MSW salmon from 1985-89 refer to hooked and released fish.
Percent 1SW is calculated by year of smolt migration.

Table 22. Recreational catch of Atlantic salmon, Salmon Fishing Area 14, 1974-1989.

SALMON FISHING AREA 14
TOTAL (ESTIMATED + OBSERVED) ANGLING CATCH, 1974-1989

YEAR	EFFORT ROD-DAYS	1SW <63CM	MSW >63CM	TOTAL CATCH	CPUE	PERCENT 1SW
1974	12282	3860	404	4264	0.35	.
1975	11439	5887	244	6131	0.54	94
1976	21042	9879	410	10289	0.49	93
1977	20985	7369	1065	8434	0.40	90
1978	14482	3814	255	4069	0.28	97
1979	16434	7479	178	7657	0.47	96
1980	16695	4681	517	5198	0.31	94
1981	22071	7580	357	7937	0.36	93
1982	19392	6034	187	6221	0.32	98
1983	19549	5800	199	5999	0.31	97
1984	20494	5794	272	6066	0.30	96
1985	17071	4770 (29)	129	4899	0.29	98
1986	20108	6118 (102)	286	6404	0.32	94
1987	20054	6507 (41)	256	6763	0.34	96
1988	24675	7843 (171)	422	8265	0.33	94
1989	21123	4376 (44)	97	4473	0.21	99
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:						
PREV 5	20480.4	6206.4	273.0	6479.4	0.32	95.5
CL=+/-	2717.5	1389.6	129.3	1513.5	0.02	0.8
N	5	5	5	5	5	5
PREV 10	19654.3	6260.6	280.3	6540.9	0.33	95.4
CL=+/-	2538.6	791.2	86.4	803.6	0.03	1.2
N	10	10	10	10	10	10
PREV 15	18451.5	6227.7	345.4	6573.1	0.36	94.7
CL=+/-	3670.3	902.7	125.4	941.1	0.04	1.7
N	15	15	15	15	15	15

Numbers in parenthese refer to hooked and released fish.
Percent 1SW is calculated by year of smolt migration.

Table 23. Recreational catch of Atlantic salmon, Statistical Area A, Section 1, 1974-1989.

STATISTICAL AREA A(01)
TOTAL (ESTIMATED + OBSERVED) ANGLING CATCH, 1974-1989

YEAR	EFFORT ROD-DAYS	1SW <63CM	MSW >63CM	TOTAL CATCH	CPUE	PERCENT 1SW
1974	687	31	0	31	0.05	.
1975	457	46	0	46	0.10	100
1976	832	92	0	92	0.11	100
1977	1341	143	0	143	0.11	100
1978	664	91	0	91	0.14	100
1979	662	126	0	126	0.19	100
1980	637	76	0	76	0.12	100
1981	627	147	8	155	0.25	90
1982	522	53	0	53	0.10	100
1983	868	132	2	134	0.15	96
1984	381	58	0	58	0.15	100
1985	521	88	0	88	0.17	100
1986	505	136	0	136	0.27	100
1987	651	77	0	77	0.12	100
1988	943	158	0	158	0.17	100
1989	1424	76	0	76	0.05	100
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:						
PREV 5	600.2	103.4	0.0	103.4	0.17	100.0
CL=+/-	214.2	52.1	0.0	52.1	0.04	0.0
N	5	5	5	5	5	5
PREV 10	631.7	105.1	1.0	106.1	0.17	99.0
CL=+/-	169.1	27.7	1.8	28.6	0.03	1.4
N	10	10	10	10	10	10
PREV 15	686.5	96.9	0.7	97.6	0.14	99.2
CL=+/-	237.6	22.6	1.2	23.1	0.03	1.1
N	15	15	15	15	15	15

Numbers of MSW salmon from 1985-89 refer to hooked and released fish.
Percent 1SW is calculated by year of smolt migration.

Table 24. Recreational catch of Atlantic salmon, Statistical Area J_2, 1974-1989.

STATISTICAL AREA J2
TOTAL (ESTIMATED + OBSERVED) ANGLING CATCH, 1974-1989

YEAR	EFFORT ROD-DAYS	1SW <63CM	MSW >63CM	TOTAL CATCH	CPUE	PERCENT 1SW
1974	1423	658	13	671	0.47	.
1975	1204	510	20	530	0.44	97
1976	926	297	5	302	0.33	99
1977	1238	558	48	606	0.49	86
1978	1305	366	20	386	0.30	97
1979	1711	733	10	743	0.43	97
1980	2175	820	29	849	0.39	96
1981	2038	1060	17	1077	0.53	98
1982	2810	1555	15	1570	0.56	99
1983	2648	667	8	675	0.25	99
1984	3590	1922	68	1990	0.55	91
1985	3722	1097	30	1127	0.30	98
1986	3430	938	33	971	0.28	97
1987	2212	829	27	856	0.39	97
1988	3607	1413	23	1436	0.40	97
1989	2657	560	10	570	0.21	99
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:						
PREV 5	3312.2	1239.8	36.2	1276.0	0.39	96.8
CL=+/-	623.8	546.8	22.5	564.6	0.10	0.8
N	5	5	5	5	5	5
PREV 10	2794.3	1103.4	26.0	1129.4	0.40	97.5
CL=+/-	748.9	290.3	12.2	298.4	0.07	0.7
N	10	10	10	10	10	10
PREV 15	2269.3	894.9	24.4	919.3	0.41	97.1
CL=+/-	980.3	250.8	9.1	255.7	0.06	0.9
N	15	15	15	15	15	15

Numbers of MSW salmon from 1985-89 refer to hooked and released fish.
Percent 1SW is calculated by year of smolt migration.

Table 25. Recreational catch of Atlantic salmon, Statistical Area K, 1974-1989.

STATISTICAL AREA K
TOTAL (ESTIMATED + OBSERVED) ANGLING CATCH, 1974-1989

YEAR	EFFORT ROD-DAYS	1SW <63CM	MSW >63CM	TOTAL CATCH	CPUE	PERCENT 1SW
1974	18946	4322	744	5066	0.27	.
1975	21678	5771	756	6527	0.30	85
1976	20964	5121	554	5675	0.27	91
1977	17209	4355	994	5349	0.31	84
1978	11084	2327	597	2924	0.26	88
1979	7751	2572	84	2656	0.34	97
1980	12316	4213	673	4886	0.40	79
1981	14311	4911	500	5411	0.38	89
1982	15417	5045	469	5514	0.36	91
1983	16480	3075	554	3629	0.22	90
1984	14783	4847	262	5109	0.35	92
1985	12779	2871	246	3117	0.24	95
1986	16588	3819	430	4249	0.26	87
1987	12346	2807	216	3023	0.24	95
1988	14393	3834	230	4064	0.28	92
1989	10370	1717	105	1822	0.18	97
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:						
PREV 5	14177.8	3635.6	276.8	3912.4	0.28	92.6
CL=+/-	1698.1	1041.0	108.5	1073.8	0.04	2.0
N	5	5	5	5	5	5
PREV 10	13716.4	3799.4	366.4	4165.8	0.30	90.9
CL=+/-	2604.0	671.7	132.3	745.2	0.04	2.2
N	10	10	10	10	10	10
PREV 15	15136.3	3992.7	487.3	4479.9	0.30	89.5
CL=+/-	3714.6	587.5	137.7	660.1	0.03	2.4
N	15	15	15	15	15	15

Numbers of MSW salmon from 1985-89 refer to hooked and released fish.
Percent 1SW is calculated by year of smolt migration.

Table 26. Recreational catch of Atlantic salmon, Statistical Area L, 1974-1989.

STATISTICAL AREA L
TOTAL (ESTIMATED + OBSERVED) ANGLING CATCH, 1974-1989

YEAR	EFFORT ROD-DAYS	1SW <63CM	MSW >63CM	TOTAL CATCH	CPUE	PERCENT 1SW
1974	10367	2867	172	3039	0.29	.
1975	10575	6232	130	6362	0.60	96
1976	11958	5262	72	5334	0.45	99
1977	7265	2357	55	2412	0.33	99
1978	8602	2962	258	3220	0.37	90
1979	8632	3437	29	3466	0.40	99
1980	8997	3700	320	4020	0.45	91
1981	9528	4389	163	4552	0.48	96
1982	9829	4521	126	4647	0.47	97
1983	8993	3262	56	3318	0.37	99
1984	7369	2924	47	2971	0.40	99
1985	7358	2431	11	2442	0.33	100
1986	9119	3527	261	3788	0.42	90
1987	8541	3211	126	3337	0.39	97
1988	9963	4383	176	4559	0.46	95
1989	8178	1457	26	1483	0.18	99
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:						
PREV 5	8470.0	3295.2	124.2	3419.4	0.40	96.1
CL=+/-	1129.6	905.8	124.4	1000.6	0.04	2.0
N	5	5	5	5	5	5
PREV 10	8832.9	3578.5	131.5	3710.0	0.42	96.3
CL=+/-	902.5	489.3	72.8	528.7	0.03	1.5
N	10	10	10	10	10	10
PREV 15	9139.7	3697.7	133.5	3831.1	0.42	96.5
CL=+/-	1297.9	596.6	51.3	605.6	0.04	1.3
N	15	15	15	15	15	15

Numbers of MSW salmon from 1985-89 refer to hooked and released fish.
Percent 1SW is calculated by year of smolt migration.

Table 27. Recreational catch of Atlantic salmon, Statistical Area M, 1974-1989.

STATISTICAL AREA M
TOTAL (ESTIMATED + OBSERVED) ANGLING CATCH, 1974-1989

YEAR	EFFORT ROD-DAYS	1SW <63CM	MSW >63CM	TOTAL CATCH	CPUE	PERCENT 1SW
1974	5672	1300	98	1398	0.25	.
1975	5458	2056	74	2130	0.39	95
1976	12781	4275	66	4341	0.34	97
1977	12350	3151	454	3605	0.29	90
1978	8718	1800	59	1859	0.21	98
1979	9805	3171	46	3217	0.33	98
1980	10202	2016	148	2164	0.21	96
1981	13767	3224	98	3322	0.24	95
1982	11267	2554	53	2607	0.23	98
1983	10832	1721	51	1772	0.16	98
1984	11483	2996	84	3080	0.27	95
1985	9423	2213	26	2239	0.24	99
1986	11022	3263	98	3361	0.30	96
1987	10571	2887	35	2922	0.28	99
1988	12811	3945	168	4113	0.32	95
1989	11628	2241	43	2284	0.20	99
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:						
PREV 5	11062.0	3060.8	82.2	3143.0	0.28	97.0
CL=+/-	1241.5	779.3	70.8	846.3	0.03	1.1
N	5	5	5	5	5	5
PREV 10	11118.3	2799.0	80.7	2879.7	0.26	97.0
CL=+/-	1327.7	481.2	34.3	496.1	0.03	0.9
N	10	10	10	10	10	10
PREV 15	10410.8	2704.8	103.9	2808.7	0.27	96.2
CL=+/-	2392.0	469.0	57.9	484.4	0.03	1.9
N	15	15	15	15	15	15

Numbers of MSW salmon from 1985-89 refer to hooked and released fish.
Percent 1SW is calculated by year of smolt migration.

Table 28. Recreational catch of Atlantic salmon, Statistical Area N, 1974-1989.

STATISTICAL AREA N
TOTAL (ESTIMATED + OBSERVED) ANGLING CATCH, 1974-1989

YEAR	EFFORT ROD-DAYS	1SW <63CM	MSW >63CM	TOTAL CATCH	CPUE	PERCENT 1SW
1974	3210	1789	15	1804	0.56	.
1975	3344	2716	16	2732	0.82	99
1976	3533	3014	34	3048	0.86	99
1977	3376	2413	18	2431	0.72	99
1978	2687	1350	13	1363	0.51	99
1979	3818	3281	13	3294	0.86	99
1980	3380	1651	32	1683	0.50	99
1981	4324	2511	31	2542	0.59	98
1982	4324	2156	54	2210	0.51	98
1983	4320	1947	16	1963	0.45	99
1984	4633	1753	3	1756	0.38	100
1985	3463	1377	3	1380	0.40	100
1986	3938	1648	4	1652	0.42	100
1987	3839	1656	6	1662	0.43	100
1988	5214	2148	3	2151	0.41	100
1989	3176	886	1	887	0.28	100
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:						
PREV 5	4217.4	1716.4	3.8	1720.2	0.41	99.8
CL=+/-	699.3	346.3	1.6	346.0	0.02	0.1
N	5	5	5	5	5	5
PREV 10	4125.3	2012.8	16.5	2029.3	0.49	99.2
CL=+/-	554.3	396.3	12.4	399.6	0.09	0.5
N	10	10	10	10	10	10
PREV 15	3826.9	2094.0	17.4	2111.4	0.55	99.2
CL=+/-	646.9	324.6	8.1	327.4	0.09	0.4
N	15	15	15	15	15	15

Numbers of MSW salmon from 1985-89 refer to hooked and released fish.
Percent 1SW is calculated by year of smolt migration.

Table 29. Recreational catch of Atlantic salmon, Statistical Area O, 1974-1989.

STATISTICAL AREA O(50)
TOTAL (ESTIMATED + OBSERVED) ANGLING CATCH, 1974-1989

YEAR	EFFORT ROD-DAYS	1SW <63CM	MSW >63CM	TOTAL CATCH	CPUE	PERCENT 1SW
1974	2713	740	291	1031	0.38	.
1975	2180	1069	154	1223	0.56	83
1976	3896	2498	310	2808	0.72	78
1977	3918	1662	593	2255	0.58	81
1978	2413	573	183	756	0.31	90
1979	2149	901	119	1020	0.47	83
1980	2476	938	337	1275	0.51	73
1981	3353	1698	220	1918	0.57	81
1982	3279	1271	80	1351	0.41	96
1983	3529	2000	130	2130	0.60	91
1984	3997	987	185	1172	0.29	92
1985	3664	1092	100	1192	0.33	91
1986	4643	1071	184	1255	0.27	86
1987	4993	1887	215	2102	0.42	83
1988	5707	1592	251	1843	0.32	88
1989	4895	1173	53	1226	0.25	97
MEANS, 95% CONFIDENCE LIMITS, N'S PRECEDING 1989:						
PREV 5	4600.8	1325.8	187.0	1512.8	0.33	88.3
CL=+/-	809.5	488.9	69.3	534.7	0.05	2.5
N	5	5	5	5	5	5
PREV 10	3779.0	1343.7	182.1	1525.8	0.40	87.2
CL=+/-	1097.8	296.3	56.0	302.6	0.07	3.5
N	10	10	10	10	10	10
PREV 15	3527.3	1331.9	223.5	1555.4	0.44	85.7
CL=+/-	1051.8	296.4	70.6	321.0	0.08	4.1
N	15	15	15	15	15	15

Percent 1SW is calculated by year of smolt migration.

Table 30. Fishway and fence counts in Salmon Fishing Area 14.

	Salmon Fishing Area 14											
	Statistical Area N					Statistical Area M						
	Western Arm Brook fence					Torrent River fishway			Lomond River fishway			
	Downstream		Upstream									
Year	Smolts	Kelt	1SW	MSW	Total	1SW	MSW	Total	1SW	MSW	Total	
1971	5,735	185	427	---	427	54	4	58	6	0	6	
1972	11,905	211	205(309)	9	214	64	3	67	30	15	45	
1973	8,484	95	351(555)	30	381	96	12	108	108	110	218	
1974	11,854	302	299(399)	4	303	38	3	41	41	33	74	
1975	9,600	203	393(631)	1	394	191	25	216	1	0	1	
1976	6,232	201	420(520)	0	420	341	47	388	132	11	143	
1977	9,899	327	341	3	344	789	33	822	192	11	203	
1978	13,071	210	285	1	286	971	21	992	117	12	129	
1979	8,349	1	1,578	0	1,578	1,984	39	2,023	195	1	196	
1980	15,665	899	430	3	433	792	63	855	301	19	320	
1981	13,981	168	447	1	448	2,101	97	2,198	110	50	160	
1982	12,477	300	387	3	390	2,112	523	2,635	275	16	291	
1983	10,552	207	1,141	4	1,145	2,007	442	2,449	220	7	227	
1984	20,653	719	117	0	117	1,805	288	2,093	440	47	487	
1985	13,417	111	162	1	163	1,553	30	1,583	190	14	204	
1986	17,719	168	252	0	252	2,815	90	2,906	354	32	386	
1987	17,029	73	378	1	379	2,505	68	2,573	355	11	366	
1988	15,309	353	102	1	103	2,065	41	2,106	437	21	458	
1989	11,397	251	414	1	415	1,339	54	1,393		No Counts		
1984-88												
Mean	16,825	285	202	0.6	203	2,149	103	2,252		N/A		
S.D.	2,711	265	114	0.5	114	513	106	506		N/A		
N	5	5	5	5	5	5	5	5		N/A		
1979-88												
Mean	14,515	300	499	1.4	501	1,974	168	2,142		N/A		
S.D.	3,584	290	482	1.4	482	541	182	587		N/A		
N	10	10	10	10	10	10	10	10		N/A		

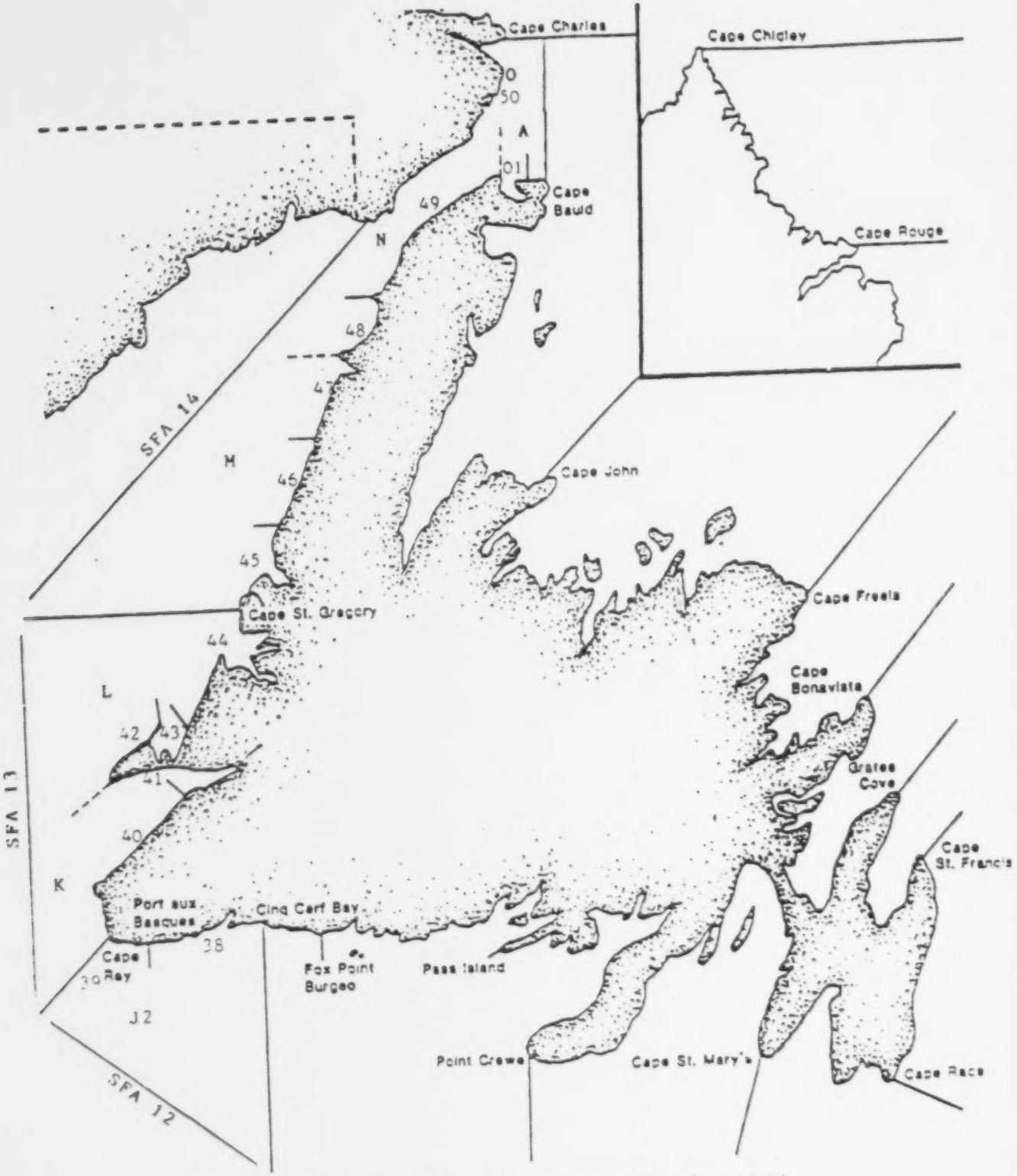

Fig. 1. Boundaries of Salmon Fishing Areas 12, 13, and 14, Statistical Areas, and Statistical Sections, Gulf Region, Newfoundland and Labrador.

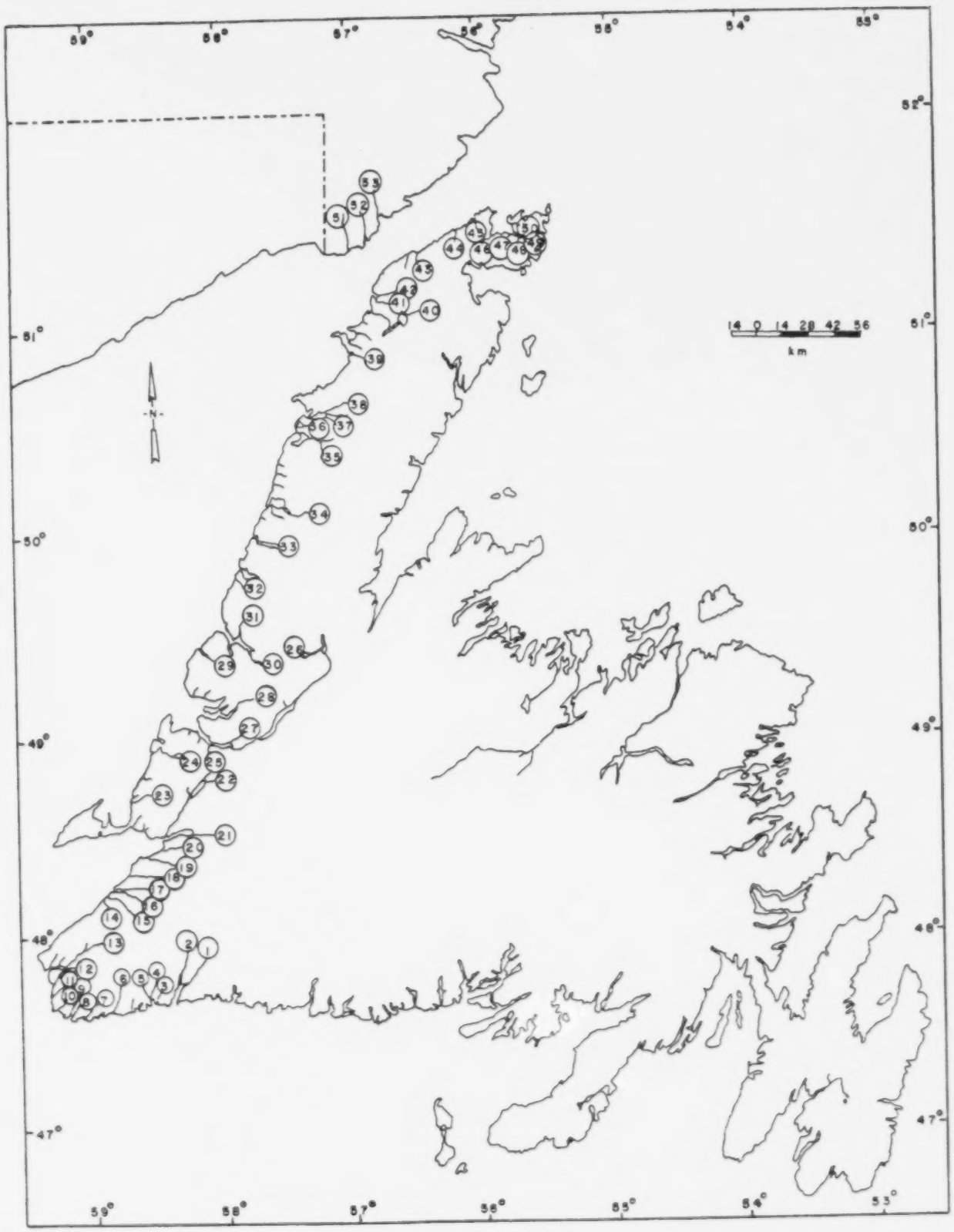

Fig. 2 Location of salmon rivers in Western Newfoundland and Labrador. Refer to Table 2 for map index.

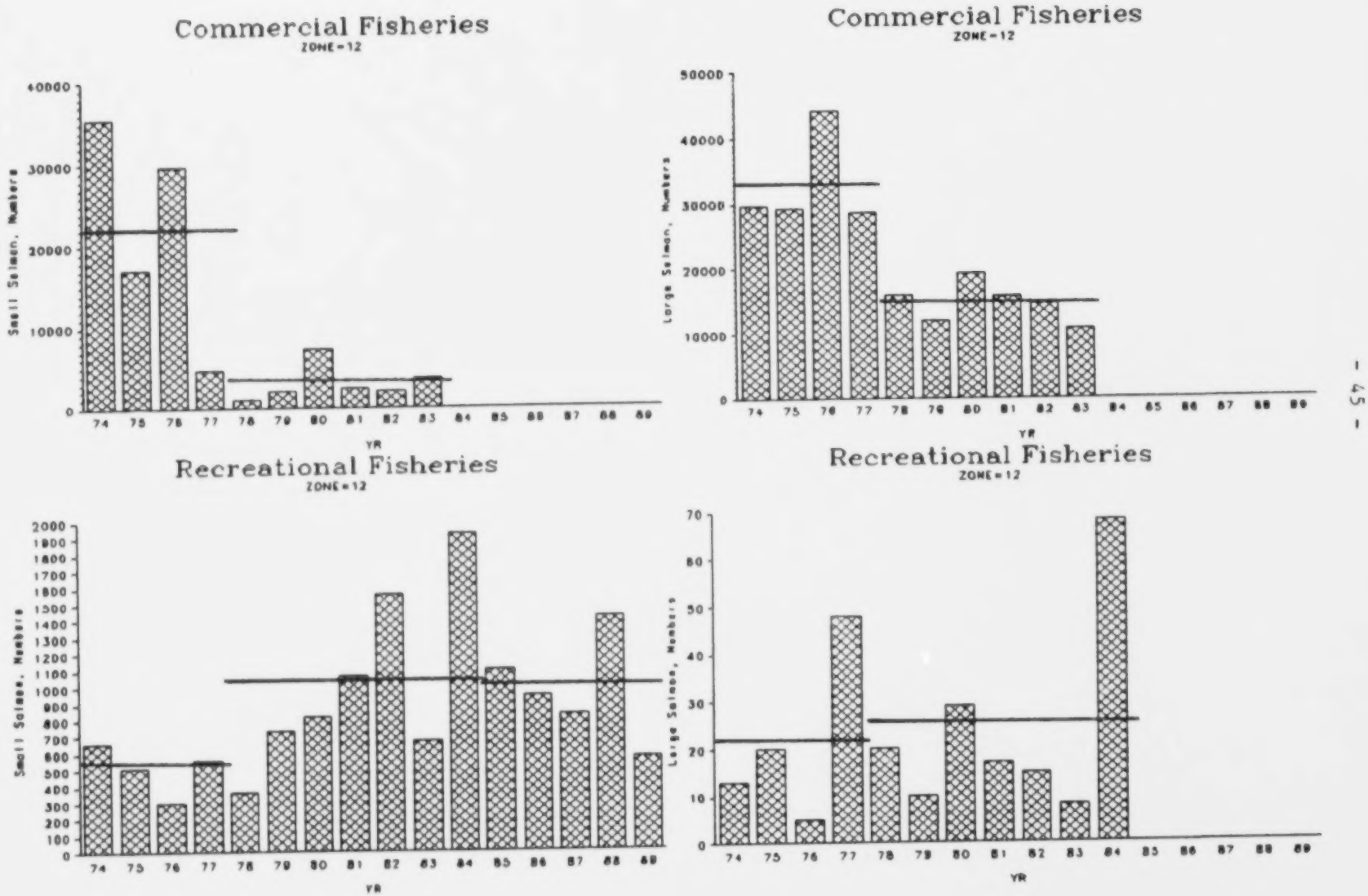

Fig. 3 Atlantic salmon commercial and recreational catches for SFA 12. Mean catches for years with similar management plans are shown by horizontal bars.

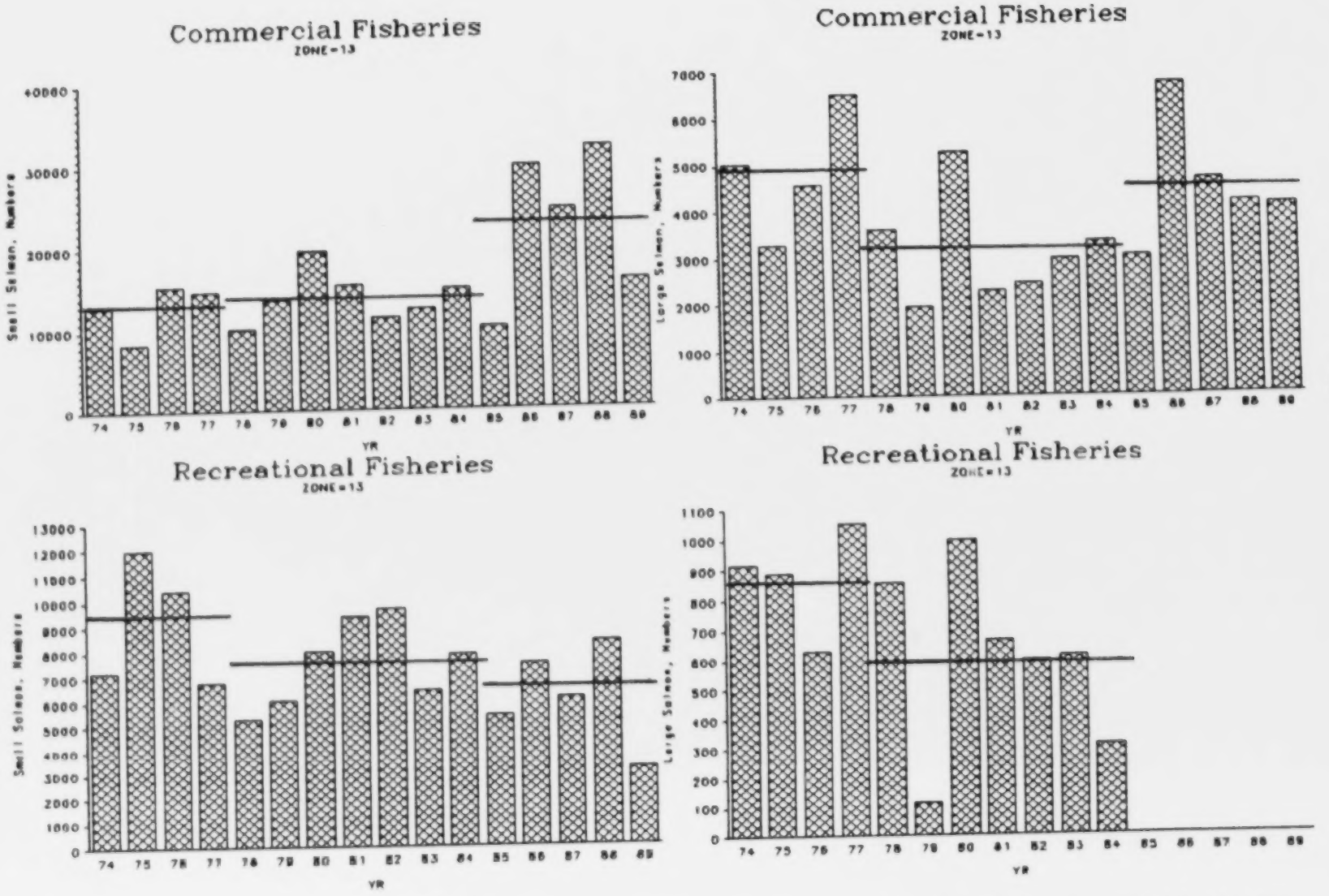

Fig. 4 Atlantic salmon commercial and recreational catches for SFA 13. Mean catches for years with similar management plans are shown by horizontal bars.

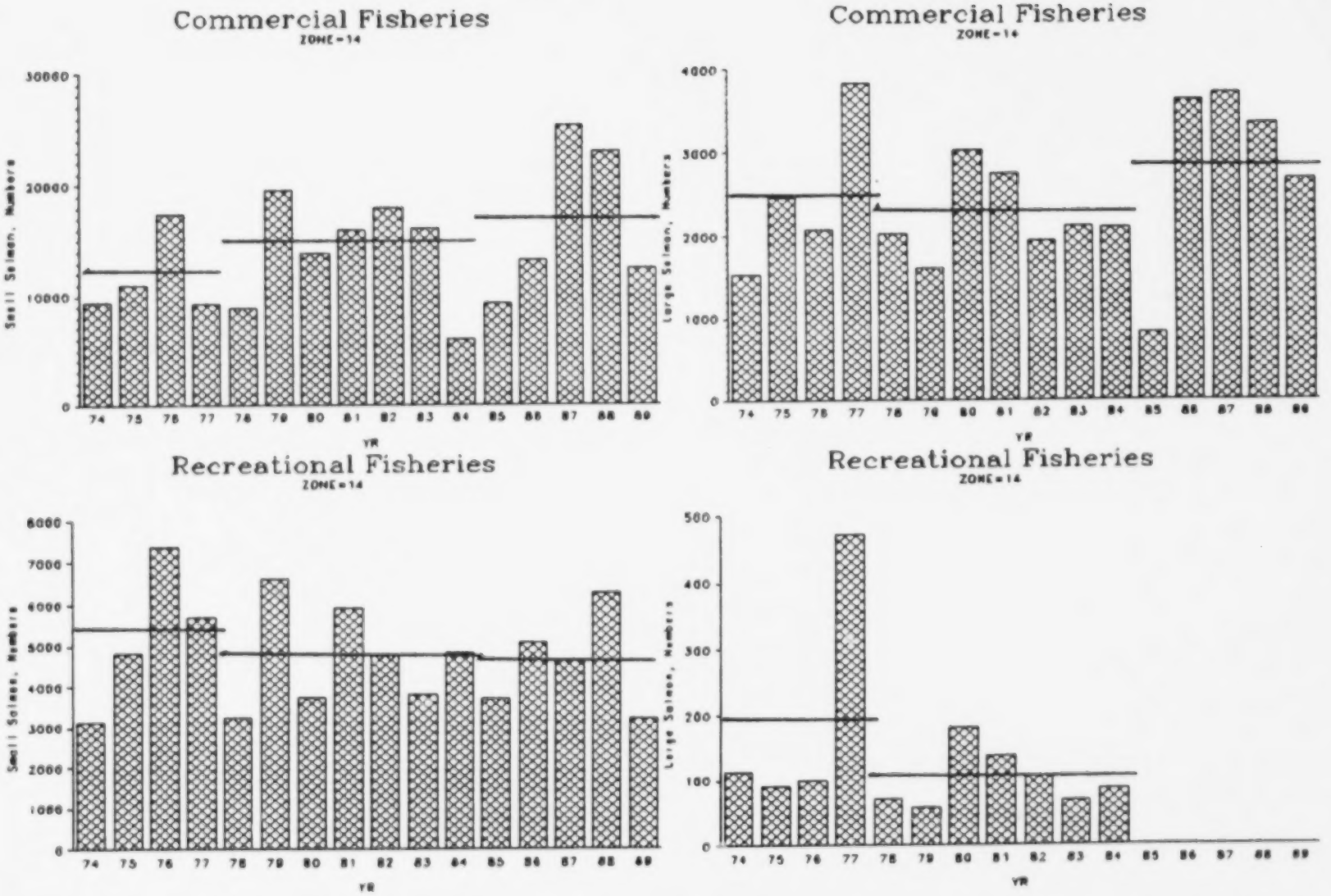

Fig. 5 Atlantic salmon commercial and recreational catch for the Gulf Region portion of the Northern Peninsula, SFA 14 with Section 50 excluded. Mean catches for years with similar management plans are shown by horizontal bars.

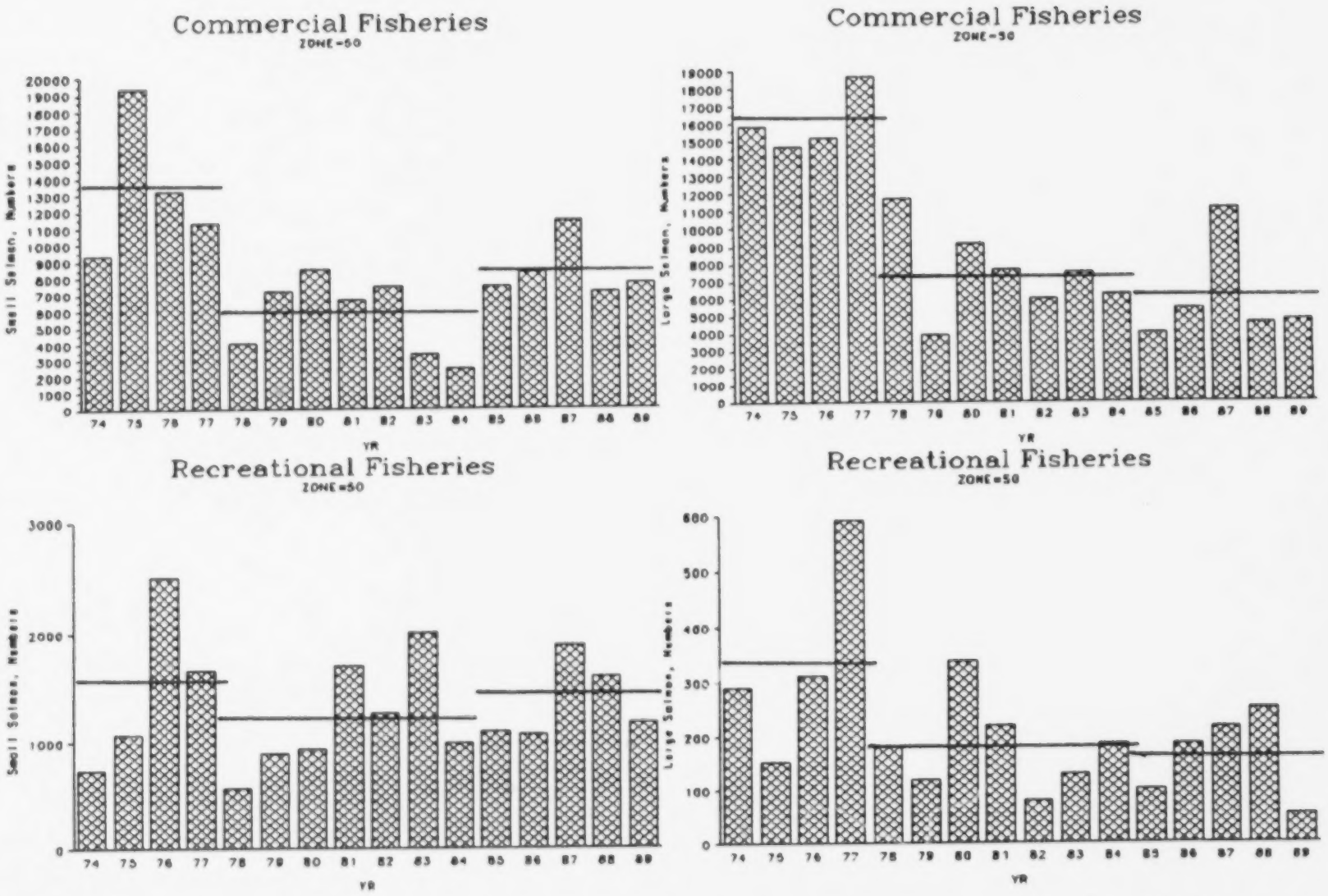

Fig. 6 Atlantic salmon commercial and recreational catch for Southern Labrador, Gulf Region, (Section 50). Mean catches for years with similar management plans are shown by horizontal bars.

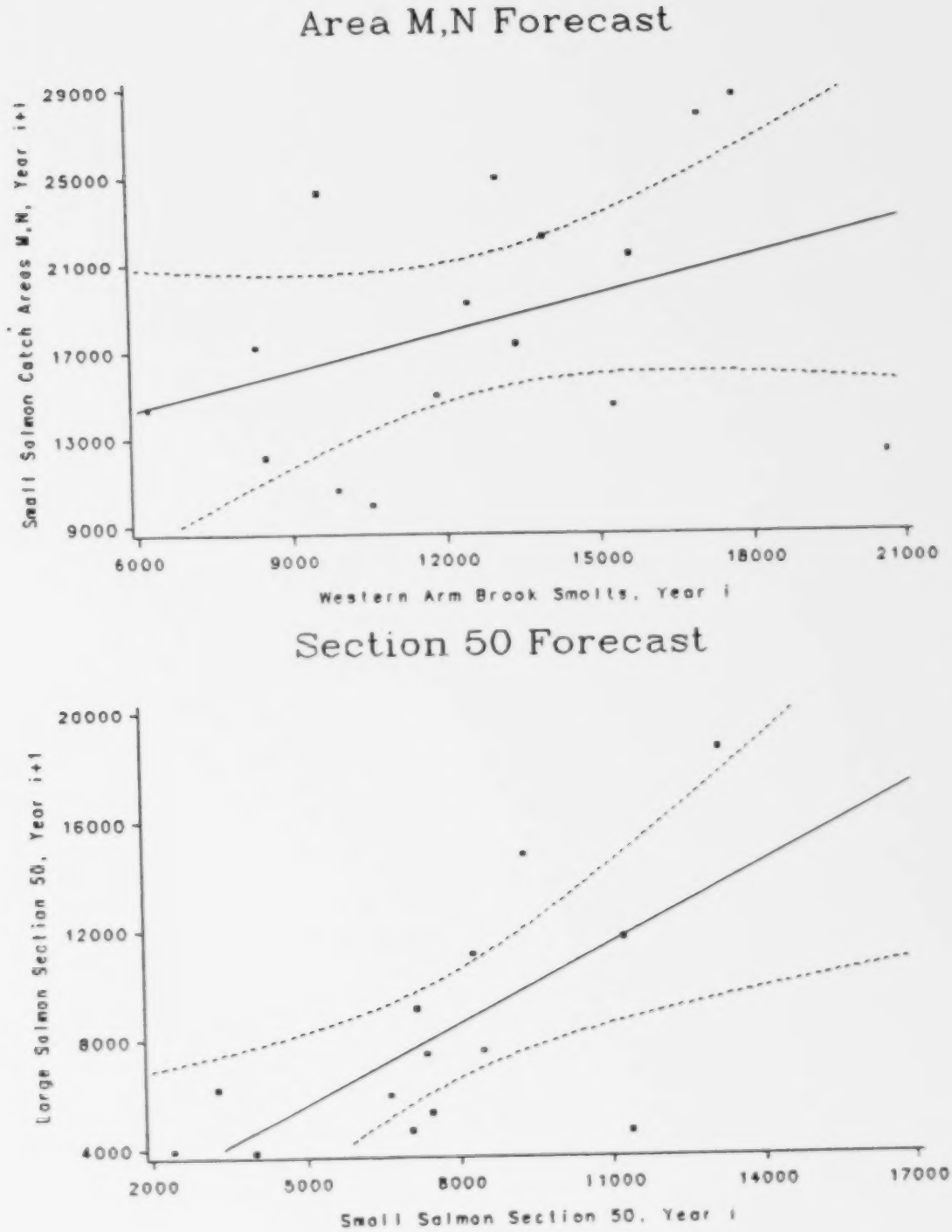

Fig. 7 Forecast of 1990 small commercial and 1SW recreational catch, Areas M + N (upper figure) and 1990 large salmon commercial catch in Section 50 (lower figure). Formulae R^2, and p-values given in text. Solid line, regression line; dotted line, 95% confidence limit for the mean.